

Home and Building Automation



ingenium

Design and quality, always together

Ingenium is a leading company dedicated to the design, development and manufacture of high technology automation since 1998.

High standards of quality and a strong commitment to R & D are the hallmark of **Ingenium** since its very beginning. This willingness to innovate caring in detail each stage of the development process of any single device is what gives us the confidence of our customers and makes every year more users come to **Ingenium**.

The **Ingenium** protocol is fully open and royalty-free, allowing other manufacturers to design devices under our standard.

The **Ingenium** products are versatile and intuitive, offering comfort, safety and energy efficiency, paying particular attention to the design: basic pillars that underpin our concept of home automation.



Index

Visualization	9
Security	17
Inputs-Outputs	21
Dimmers	27
Sensors	33
Clima	41
Audio	45
Energy efficiency	49
Software & Apps	53
More devices	55
Hidden movement detector - SR	61

- Access control
- Blinds
- Visualization

- Technical Alarms
- Energy Efficiency
- Audio

- Presence
- Lighting
- Clima



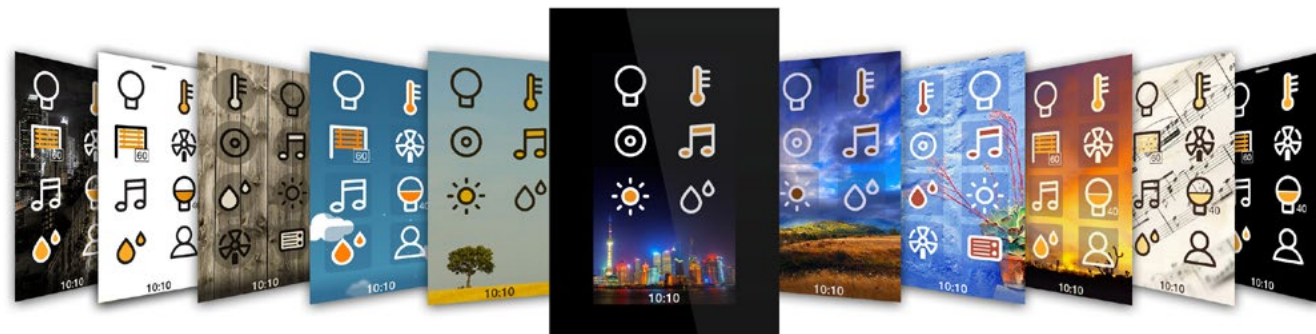


VISUALIZATION

SMART TOUCH PLUS
PPL7-G
PPL10-G

PPL4-G
MECBUS-G
TECBUS-G

ETHBUS3
GSMdata
BPC-SC



SMART TOUCH PLUS

- 4,3" capacitive color vertical touch screen, to control and monitor a BUSing® installation. Appearance completely customizable (backgrounds, icons, text, controls, etc.).
- It supports up to 6 different themes, up to 32 controls, divided into 4 pages (8 icons per page).
- It includes temperature probe to manage a separate climate area.
- It has free wi-fi and integrates a web server that allows local and/or remote control of the installation with official apps for iOS, Android and Samsung Smart TV.
- Gestural shortcuts and password lock.
- Basic version available: Ref: Smart Touch



PPL7-G / PPL10-G



- 7" or 10" capacitive color touch screen to control and monitor the elements of a BUSing® installation.
- It integrates a web server that allows local and/or remote control of a installation with Ingenium official apps for iOS, Android and Samsung Smart TV.
- It has free wi-fi, self-configurable within the local network that allows the device to be updated via the Internet to the latest available firmware.
- It allows the user to edit its own scenarios, to program annual timings intuitively. Incorporated alarm arming/disarming, intrusion control, presence simulation, thermostats, IP camera display and password lock.



PPL4-G



- 4,3" capacitive color touch screen to control and monitor the elements of a BUSing® installation.
- It integrates a web server that allows local and/or remote control of a installation with Ingenium official apps for iOS, Android and Samsung Smart TV.
- It has free wi-fi self-configurable within the local network that allows the device to be updated via the Internet to the latest available firmware.
- It allows the user to edit its own scenarios, to program annual timings intuitively. Incorporated alarm arming/disarming, intrusion control, presence simulation, thermostats, IP camera display and password lock.



MECBUS-G



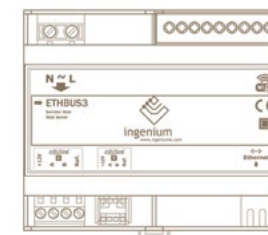
- 4,3" capacitive color touch screen to control and monitor the elements of a BUSing® installation.
- Designed to replace conventional switches and pushbuttons, ideal for installing one per room.
- It includes the ability to control up to 16 point to point elements by basic icons and 16 scenes with a name. It can incorporate an internal temperature probe for controlling the clima.



TECBUS-G

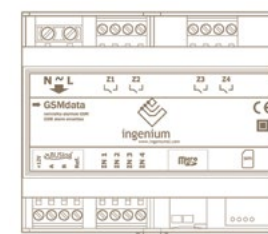


- 4,3" capacitive color touch screen to control and monitor the elements of a BUSing® installation.
- It allows to manage technical alarms or presence simulation, and to program timings scenes.
- It includes the ability to control up to 16 point to point elements by basic icons and 15 scenes with a name. It can incorporate an internal temperature probe for controlling the clima.



- Web server that allows controlling a BUSing® installation via the Internet, by icons on 3D color drawings in local and/or remote mode with official Ingenium Apps for iOS and Android, or from any PC browser or Samsung Smart TV in local mode.
- The web server has wi-fi and ethernet connections self-configurable within the local network and can work simultaneously. The Internet allows the device to upgrade to the latest available firmware.
- This device is able to submit push notifications to Ingenium apps for iOS and Android.
- The control via web browser, allows the user to edit its own scenarios, programming annual timings intuitively.
- Alarm arming/disarming included. Intrusion, alarms control, presence simulation, thermostats control, IP cameras display and password lock.

ETHBUS3



- Web server that allows controlling a BUSing® installation via GPRS, by icons on 3D color drawings in remotely with Ingenium official apps for iOS and Android.
- The web Server has a SIM card slot. The approximate data consumption of a BUSing® installation is 5Mb/month. It has 4 potential free relay outputs and 4 inputs for connecting conventional equipments.
- This device is able to submit push notifications to Ingenium apps for iOS and Android.

GSMdata



BPC-SC

- Gateway to connect a PC with the SC-PC software and a BUSing® installation. The connection to the PC is established via Ethernet.



SECURITY

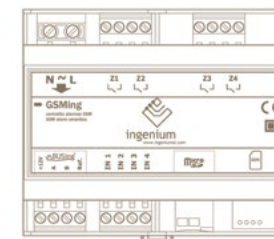
KCtr
GSMing
KCtr-basic
RFIDBUS
TjRFID



KCtr

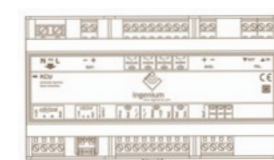


- Technical alarms (intrusion, flood, fire, gas, smoke) central management.
- It allows the management of the installation (climate, lighting, blinds) through telephone voice-menus.
- It can be programmed for different actions depending on detection (eg. closing the gas valve in the event of a gas leak).
- It has 4 outputs, one reserved for the siren and 6 inputs for connection of conventional sensors.
- It allows up to 3 phone numbers for the warning alarms (up to 8 alarms are possible).
- The entire installation can be managed through a voice menu.



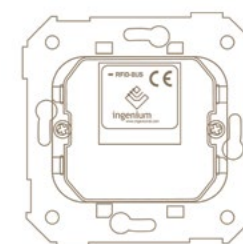
- Technical alarms central management (intrusion, flood, fire, gas, smoke).
- Installation monitoring and alarm notification via SMS.
- Supports up to 3 different phone numbers to notify technical alarms (max 5)

GSMing



- Technical alarms central management (intrusion, flood, fire, gas, smoke).
- Allows telephone management through spoken menus, similarly to KCtr.
- Unlike KCtr, this device does not include calls to an internal telephone.

KCtr-basic



- Smart card reader can distinguish up to 255 different users (5 groups of priority).
- Each of those 5 groups will have some times and some custom access permissions.
- Also can be used for activation and deactivation of intrusion alarms.

RFIDBUS



- Smart card to be used with RFIDBUS devices.
- It has a unique user code.
- Provides access to all functions programmed in the RFIDBUS

TJRFID



INPUTS OUTPUTS

4E4S
6E4S
4E4S-30A
4E4S-F4A

2E2S
2E2S-PW
2E2S-C30A
8S

MECing
MECing-W
MECing-C

4E4S

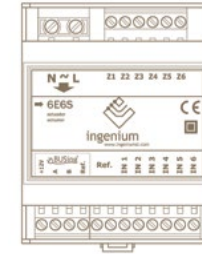
- Actuator equipped with 4 outputs potential-free relay with 10A switching capacity each.
- It permits controlling up to 4 electrical loads or 2 blinds.
- It can also control all types of motors or solenoids engines.
- It integrates a power supply capable of providing power to the BUS.
- Allows manual control via push buttons and / or switches.
- 4 programmable inputs.



6E6S

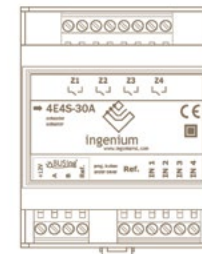


- Actuator equipped with 6 outputs to control 6 electrical loads or 3 blinds.
- It integrates an internal power supply capable of providing power to the BUS.
- Allows manual control via push buttons and/or switches. 6 programmable inputs.



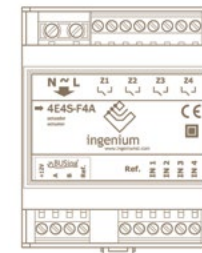
4E4S-30A

- Actuator equipped with 4 outputs for controlling electrical high power loads.
- It incorporates cutting power relays with 30A per output and possibility of manual reset.
- Allows manual control via push buttons and/or switches. 4 programmable inputs.



4E4S-F4A

- Actuator equipped with 4 TRIAC outputs with maximum cutting power of 4A per output.
- Device specially indicated for the fluorescent or LED lights control.
- Allows manual control via push buttons and/or switches. 4 programmable inputs.



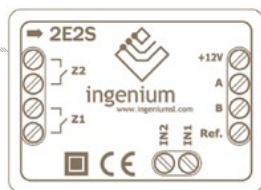


DIMMERS

RBLED2S400
RBLED500
RBLED1000
RB300
RB300-W

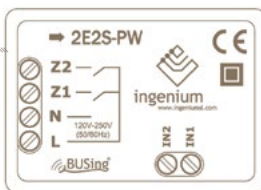
2S300
RB1500
RBF10A
DMXBUS

RGBL
RGBWL
DALing
iDALing



2E2S

- 2 outputs actuator to control two electric charges or 1 blind.
- Allows manual control via push buttons and/or switches.
- 2 programmable inputs. Small size equipment designed to be installed in register box.



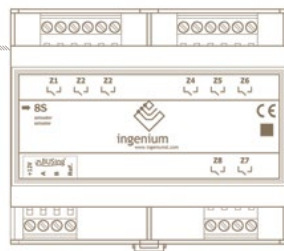
2E2S-PW

- Wireless version of 2E2S device, designed to work with electric charges or 230V blinds motors.
- Outputs intended for the required use: lighting, blind, etc.
- Allows manual control via push buttons and/or switches. 2 programmable inputs.



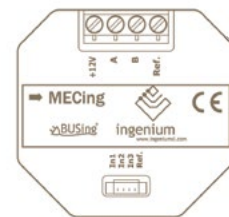
2E2S-C30A

- Actuator equipped with 2 outputs for controlling electrical high power loads.
- It incorporates cutting power relays with 30A per output and possibility of manual reset.
- Allows manual control via push buttons and/or switches. 2 programmable inputs.



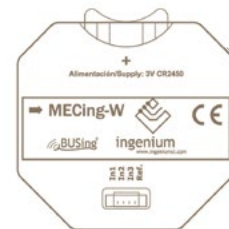
8S

- Actuator equipped with 8 outputs to control 8 electric charges or 4 blinds.
- It incorporates cutting power relays with 16A per output.
- Equipment designed to be mounted on DIN rail.



MECing

- Conventional mechanisms adapter (buttons and/or switches, sensors, etc.) for BUSing®.
- It has 3 digital inputs. Especially useful to distribute the installation and to execute scenes.
- Designed to be installed in universal mechanism box behind pushbuttons and/or switches.



MECing-W

- Wireless version of MECing device.
- It has 3 digital inputs. It receives and transmits data via radio. Powered by battery.
- Designed to be installed in universal mechanism box behind pushbuttons and/or switches.



MECing-C

- DIN rail mounted version of MECing device (2 modules)
- Especially useful to distribute the installation and to execute scenes.
- Allows high distance of wiring (approx 100 meters).
- It has 3 digital inputs.

RBLED2S400

- LED lighting controller for 2 LED circuit with maximum power of 400W each.
- It also controls incandescent or halogen lighting, with or without transformer.
- Configurable values such as ramp rate, or maximum and minimum dimming values.
- It has 2 preset inputs directly connected to the outputs for controlling from switch. Controllable from other devices: MECing, touch screens, apps, etc.



RBLED500



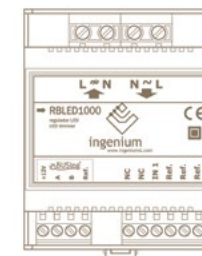
- LED lighting controller for a single LED circuit with maximum power of 500W.
- Suitable for LED lighting, it also controls incandescent or halogen lighting, with or without transformer.
- It has 1 input directly linked to the output for controlling from switch. Controllable from other devices: MECing, touch screens, apps etc.



RBLED1000



- LED lighting controller for a single LED circuit with maximum power of 1000W.
- Suitable for LED lighting, it also controls incandescent or halogen lighting, with or without transformer.
- It has 1 input directly linked to the output for controlling from switch. Controllable from other devices: MECing, touch screens, apps etc.



RB300



- Lighting controller for a single circuit with maximum power of 300W.
- Suitable for incandescent and halogen lighting, with or without transformer.
- Possibility to control this device from other devices such as MECing, touch screens, apps etc. Mounting in a junction box.

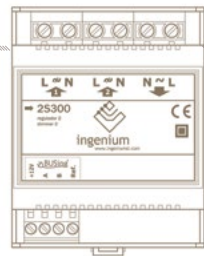


RB300-W



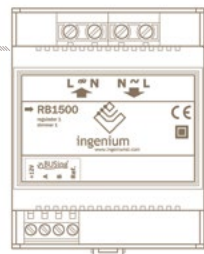
- Wireless version of RB300 device.
- Suitable for incandescent and halogen lighting, with or without transformer.
- Possibility to control this device from other devices such as MECing, touch screens, apps etc. Mounting in a junction box.





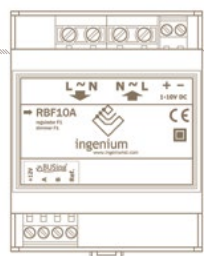
2S300

- Lighting controller for 2 circuits with maximum power of 300W each.
- Suitable for incandescent and halogen lighting, with or without transformer.
- Possibility to control this device from other devices such as MECing, touch screens, apps etc.



RB1500

- Lighting controller for a single circuit with maximum power of 1500W.
- Suitable for incandescent and halogen lighting, with or without transformer.
- Possibility to control this device from other devices such as MECing, touch screens, apps etc.



RBF10A

- 1-10V lighting controller for electronic ballasts. It has 1 regulation channel.
- Suitable for dimming fluorescent or discharge lighting with electronic ballasts.
- Possibility to control this device from other devices such as MECing, touch screens, apps etc.



DMXBUS

- Gateway to control color LEDs regulation by DMX512 protocol from BUSing®.
- Can emulate every channel of a digital dimmer (up to 255).
- It can configure a full color wheel, being able to control the level of brightness of each LED.



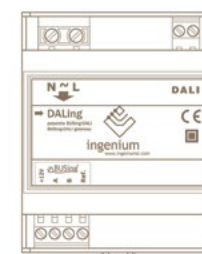
RGBL

- RGB lighting controller, can act on each of the 3 channels independently or all three at once.
- Suitable for color RGB LED strips control, creating different environments thanks to the combination of colors.
- Possibility to control this device from other devices such as MECing, touch screens, apps etc.



RGBWL

- RGB lighting controller, can act on each of the 4 channels independently or all four at once.
- Suitable for color RGBW LED strips control, creating different environments thanks to the combination of colors.
- Possibility to control this device from other devices such as MECing, touch screens, apps etc.



DALing

- Gateway to control luminaires with DALI protocol from BUSing®. It includes an integrated source.
- Controls up to 64 DALI luminaires and 16 DALI lighting groups.
- Possibility to control this device from other devices such as MECing, touch screens, apps etc.



iDALing

- 4.3" color touch screen, to control, direct and configure luminaires with DALI protocol.
- Possibility to configure up to 64 luminaires + 16 DALI lighting groups.
- It requires a DALing gateway in order to work as DALI master acting as control interface for luminaires with that protocol.



SENSORS

SifBUS-L
SRBUS
STIBUS
STIBUS-SD
STIBUS-NTC

SinBUS
Sin-W
Sin-2h
Sin-3h

DH
DHBUS
DTV
DTVBUS
DTV-W
Sif

SifBUS-E
SifBUS-S
SifBUS-W
DMBUS
DM-W
LDRBUS

SifBUS-L



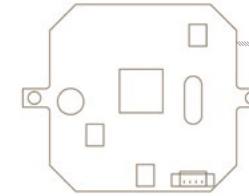
- Double sensor (Infrared motion detector + light level sensor), for cable connection to BUSing®.
- It has the ability to program events during and at the end of the detection, or in case of lack of brightness.
- It is possible to work with the presence and light detections at the same time or separately.
- It has a high level of immunity to false alarms, electromagnetics fields and temperature variations. Build for indoor installations.



SRBUS

- Sensor that detects movement through walls and ceilings of any nonmetallic material.
- Its hidden installation behind walls, ceilings, partitions, manholes or watertight boxes, guarantees protection against unwanted intrusion or vandalism acts being not accessible nor visible.
- It can be used for both intrusion on lighting and climate control among others. It is possible to set parameters such as sensitivity, sampling period, timing, etc.
- It can detect up to 25 meters straight. When installing at 2.5m high, it covers an area of 12x6m. The detection area can be screened with metal tape on device surface.

temperature



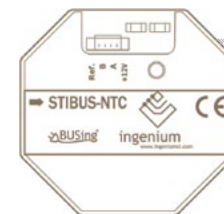
- Temperature probe for clima control of an installation zone with range of 0-51 ° C.
- Discretized PI controller included for greater comfort and energy savings.
- It permits 4 different modes (summer, winter, mixed and off) and includes support for fan-coils control.

STIBUS



- Temperature probe version to be incorporated in TECBUS-c or MECBUS-C BUSing® models.
- Temperature probe zone for clima control of an installation zone with range of 0-51 ° C.
- It permits 4 different modes (summer, winter, mixed and off).









STIBUS-SD



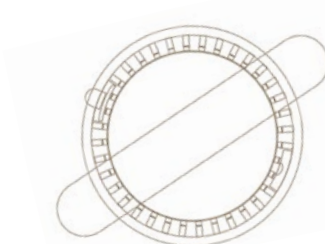

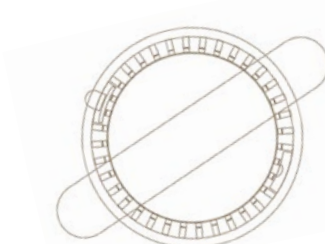

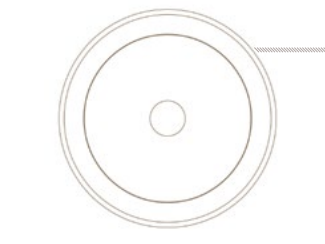

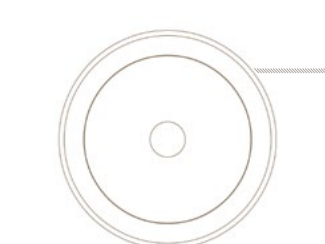

- Temperature probe zone for clima control of an installation zone with range of 0-51 ° C.
- Discretized PI controller included for greater comfort and energy savings.
- It permits 4 different modes (summer, winter, mixed and off) and includes support for Fan-coils control.

STIBUS-NTC

flooding

		<h3>SinBUS</h3> <ul style="list-style-type: none">Flood vertical probe designed for cabled connection to BUSing®.2 programmable scenes for activation and deactivation of the sensor.Designed to be located where there is a risk of leakage or accumulation of water.
		<h3>Sin-W</h3> <ul style="list-style-type: none">Flood vertical probe designed for wireless connection to BUSing®.2 programmable scenes for activation and deactivation of the sensor.Designed to be located where there is a risk of leakage or accumulation of water.
		<h3>Sin-2h</h3> <ul style="list-style-type: none">2 wires flood conventional probe for connection to KCtr or to input modules such as MECing device.2 programmable scenes for activation and deactivation of the sensor.Designed to be located where there is a risk of leakage or accumulation of water.
		<h3>Sin-3h</h3> <ul style="list-style-type: none">3 wires flood conventional probe for connection to KCtr or to input modules such as MECing device.2 programmable scenes for activation and deactivation of the sensor.Designed to be located where there is a risk of leakage or accumulation of water.

fire/smoke

		<h3>DH</h3> <ul style="list-style-type: none">Optical smoke detector for connection to KCtr or input modules such as MECing.Conventional probe for smoke detection.Suitable for installation in areas where the presence of smoke is unusual such as hallways, rooms, etc.
		<h3>DHBUS</h3> <ul style="list-style-type: none">Optical smoke detector for cable connection to BUSing®.BUS probe for smoke detection.Suitable for installation in areas where the presence of smoke is unusual such as hallways, rooms, etc.
		<h3>DTV</h3> <ul style="list-style-type: none">Temperature-increasing detector for connection to KCtr or input modules such as MECing.Conventional probe for fire detection in the installation by sudden changes in temperature.Suitable for installation in areas where the presence of smoke is usual such as kitchens, garages, etc.
		<h3>DTVBUS / DTV-W</h3> <ul style="list-style-type: none">Temperature-increasing detector for cable connection to BUSing®.BUS probe for detecting fires in the installation by sudden changes in temperature.Suitable for installation in areas where the presence of smoke is usual such as kitchens, garages, etc. <p>DTV-W: Wireless version</p>

movement



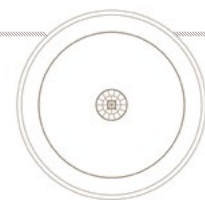
- Infrared motion detector ready for connection to PBX KCtrl or input modules such as MECing.
- Conventional sensor with high immunity to false alarms, electromagnetic fields and temperature variations.
- Placing recessed interior ceilings avoiding heavily exposed to direct sunlight and air drafts zones.

Sif



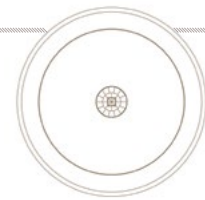
- Infrared motion detector for cable connection to BUSing®.
- BUS sensor with high immunity against false alarms, electromagnetic fields and temperature variations.
- Surface installation in interior ceilings avoiding places heavily exposed to direct sunlight and air drafts.

SifBUS-E



- Infrared motion detector for cable connection to BUSing®.
- BUS sensor with high immunity against false alarms, electromagnetic fields and temperature variations.
- Surface installation in interior ceilings avoiding places heavily exposed to direct sunlight and air drafts.

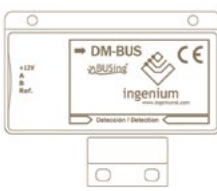
SifBUS-S



- Infrared motion detector for wireless connection to BUSing®.
- Wireless sensor with high immunity against false alarms, electromagnetic fields and temperature variations.
- Surface installation in interior ceilings avoiding places heavily exposed to direct sunlight and air drafts.

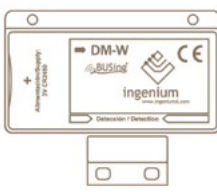
SifBUS-W

contact



- Magnetic detector for doors or windows, prepared for cable connection to BUSing®.
- BUS sensor that detects the opening of doors or windows.
- Anti-intrusion security or climate control for energy savings functions.

DMBUS



- Wireless version of DM-BUS detector.
- Wireless sensor that detects opening of doors or windows.
- Anti-intrusion security or climate control for energy savings functions.

DM-W

light



- Light level sensor with integrated PI controller, for cable connection to BUSing®.
- Control the lighting depending on the light level. Sensitivity of 0-6000 lux.
- 2 working modes available: linear (working by percentages) and threshold (working depending on lux range).

LDRBUS



CLIMA

Busing-LGAC-I
Busing-DKAC-I

Busing-LGAC-D
Busing-DKAC-D

RejiBUS
IRing



Busing-LGAC-I



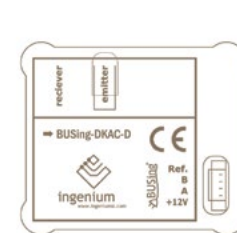
- Gateway for integration of LG air conditioning system with BUSing® control system.
- The device has connection to RS485 bus for external LG units.
- It controls up to 64 LG indoor units.
- For each of the indoor units is possible to: on/off control, choosing

the operation mode, fan speed and temperature setpoint and know the measured temperature at any time.

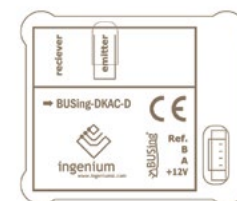
Busing-DKAC-I



- Gateway for integration of DAIKIN air conditioning system with BUSing® control system.
- It permits the control of 1 DAIKIN industrial unit.



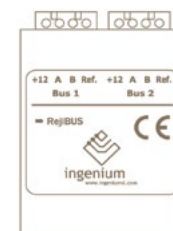
- Gateway to control LG domestic indoor units.
- It permits to turn on/off the unit, to set its mode of operation, to control the fan speed and temperature.
- Easy installation close to domestic climate unit.



- Gateway to control DAIKIN domestic indoor units.
- It permits to turn on/off the unit, to set its mode of operation, to control the fan speed and temperature.
- Easy installation close to domestic climate unit.

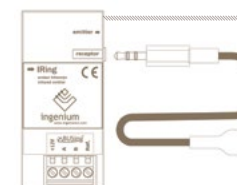
Busing-LGAC-D

Busing-DKAC-D



- Actuator to control motorized grating (12V) to zone A/C.
- Thanks to its small size, it can be installed inside the very mechanism of the grating.
- It can be controlled from any BUSing® device: STIBUS, MECing, touch screens, Apps etc.

RejiBUS



- Infrared emitter with storage capacity of up to 255 codes.
- It permits the control over many devices with infrared reception.
- Hidden installation available, except infrared emitter terminal.

IRing



AUDIO

ING-AS
SoniBUS



ING-AS

- Gateway to control audio using the DLNA system, and integrated within a BUSing® installation.
- The device has wifi connectivity and audio outputs.
- The equipment allows reproduction of content using different devices.



SoniBUS

- Equipment used to control audio.
- It has 4 inputs in which it is possible to connect different audio sources (MP3, mini stereo, radio, etc).
- It permits to select between 4 different channels and volume control.
- It offers the possibility of connection to pre-amplified speakers.





ENERGY EFFICIENCY

MeterBUS-4C
MeterBUS-1C
MeterBUS-3C



MeterBUS-4C

- Equipment for measuring and controlling the power consumption of up to 4 single-phase circuits.
- Possibility to program 2 scenes and consumption threshold for each channel. One scene is executed when consumption exceeds the threshold and another when it left to overcome.
- For heavily loaded circuits, it is possible to use current transformer rings.
- It displays consumption, graphs of weekly cumulative consumption levels and change of thresholds via Ingenium touch interfaces.



MeterBUS-1C

- Consumption meter of up to 4 different channels (1 physical + 3 virtual).
- A current transformer ring is used to perform measurements on the physical channel.
- Measurements can be displayed on the touch screens or official Ingenium Apps.



MeterBUS-3C

- Consumption meter of up to 4 different channels (3 physical + 1 virtual).
- Current transformer rings are used to perform measurements on the physical channels.
- Measurements can be displayed on the touch screens or official Ingenium Apps.



SOFTWARE & APPs

- SIDE - Software for configuring and programming BUSing® installations
- SC-PC - Software for controlling BUSing® home automation systems via PC
- SH-PC - Software for controlling hotels
- ING-TRACKER - Software for ETHBus3 network configuration
- APP-iOS - App for iPhone and iPad
- APP-Android - App for Android devices
- APP-Samsung SmartTV - App for Samsung Smart TV



**MORE
DEVICES**

programming

BPC-USB

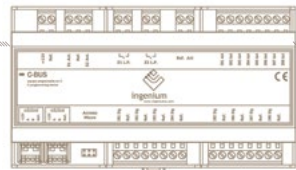


- It allows the connection of a PC via the USB port with a wired BUSing® installation.
- It allows the programming of BUS devices using the system development software SIDE.
- COM port selection and configuration of the communication speed.

BPC-USBW

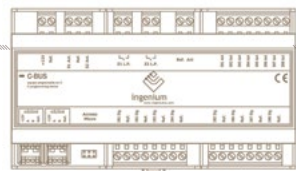


- It allows the connection of a PC via the USB port with a wireless BUSing® installation.
- It allows the programming of wireless BUS devices using the system development software SIDE.
- It has up to 13 radio communication channels to avoid interferences.



- BUSing® device that allows the development of programs in C-language applied to BUSing®.
- 8 analog inputs and 2 analog outputs of 0-10V.
- 8 digital inputs and 2 digital relay outputs with breaking 10 A.

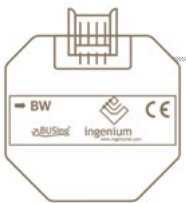
C-BUS-KIT



- Kit consists of C-BUS device and the necessary equipment for its programming.
- Includes programmer, software and libraries.
- Great potential using analog and digital inputs and outputs of the device.

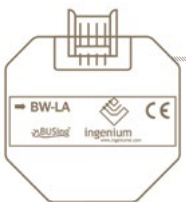
communication

BW



- Device for communication between wired and wireless BUSing® devices.
- It performs bidirectional conversion of the commands sent to different devices in the installation.
- It has up to 13 radio communication channels to avoid interferences.

BW-LA



- Device for long-range communication between wired and wireless BUSing® devices.
- It performs bidirectional conversion of the commands sent to different devices in the installation.
- It has up to 13 radio communication channels to avoid interferences.

ROUTing



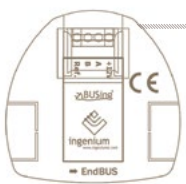
- Coupling between BUSing® main line and secondary line.
- It performs bidirectional conversion of the commands sent to different devices in the installation.
- It allows selective filtering of traffic to some devices.

REPinG



- Signal repeater device that retransmits the received data packets.
- Lengthens the distance of the bus and the number of devices connected to a line.
- It has two BUSing® connections.

EndBUS



- Device that connects the two ends of the line of BUS as active terminator.
- It polarizes the BUS line, improving communications and monitoring the activity.
- Allows detection of possible errors in communications. Error Checking from SIDE.

integrations



RS232

- Gateway between BUSing® and RS232 serial port.
- It is used to control devices with RS232 interface.
- This device is Master RS232.



ULing

- BUSing® logical unit that allows different logical operations (AND, OR, and XOR).
- It has 3 channels of communication up to 48 commands.
- Programming option of 2 BUS events for each operation channel.



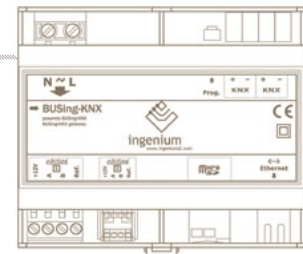
RTC

- BUSing® real time clock.
- Synchronizing time of the installation devices keeping it in case of power failure.
- Automatic and periodic synchronization via the BUS.



VeluxBUS

- Device to control Velux® type windows.
- Actuator with 1 output for controlling DC motors 24 Vdc.
- It allows to be controlled from touch screens, PC, pushbuttons, Apps, etc.



BUSing-KNX

- Gateway that allows connecting a BUSing® installation with a KNX installation.
- Programming is done through the development system SIDE or ETS.
- There are two possibilities for integration; KNX/BUSing® device or installation in BUSing®/KNX installation.

power supply



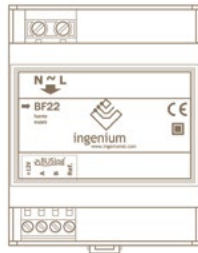
BF 1-W

- BUSing® power supply with integrated wireless repeater.
- It allows to supply BUSing® power and send and receive telegrams wirelessly.
- Mounted in universal register box.



BF2

- BUSing® power supply capable of providing 500 mA
- It allows to supply power to equipments connected to the BUS.
- It is necessary for the proper functioning of the BUSing® installation depending on the connected devices.



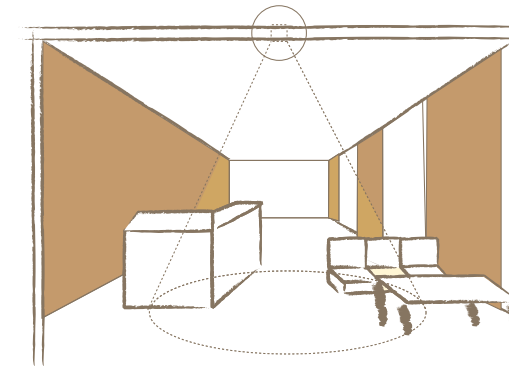
BF22

- BUSing® power supply capable of providing 1000 mA
- It allows to supply power to equipments connected to the BUS.
- It is necessary for the proper functioning of the BUSing® installation depending on the connected devices.



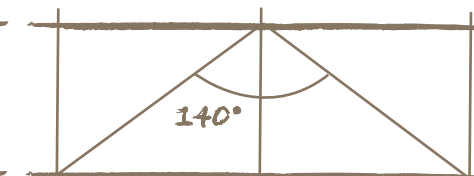
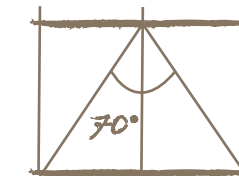
SR

HIDDEN MOVEMENT DETECTOR



Transverse detection

Longitudinal detection



- 360° Movement detector designed for hidden installation in false ceilings or walls.
- Able to detect through non-metallic solid surfaces using radio frequency technology.
- It works autonomously without BUSing® connection. Timing (0-17 mins) and sensitivity (up to 20m) adjustable by potentiometers.
- Practical, easy to install and discreet: does not alter the building interior design and saves energy.



Parque Tecnológico de Asturias
Parcela 50
33428, Llanera. Asturias (Spain)

T. +34 985.11.88.59
F. +34 984.28.35.60

export@ingeniumsl.com

www.ingeniumsl.com